

ENVS 15 – NATURAL HISTORY OF THE UCSC CAMPUS

Class time and location: Tuesdays and Thursdays 10am -12pm ISB 431 or Field Locations

Instructor: Tod Haddow

Email: thaddow@ucsc.edu

Class Webpage: Canvas - Natural History of the UCSC Campus

Office Hours: by appointment

Course Description:

This course will address different aspects of the natural history (geology, ecology, plants, animals, human history) of this amazing campus. By practicing skills of observation and awareness, this course aims to further develop your ability to learn about the natural history of any place as well as to further develop your appreciation and respect for the natural world.

Grading/Evaluations:

- **50% Attendance and participation.** We go out EVERY WEEK, rain or shine.
- **40% Field Journal Assignments and Final Project.** Each week I will give you four field assignments that will take ~4 hours and are intended to help develop your observation skills.
- **10% Quizzes.** Identification, theory, questions on the reading, species we've seen in class. Weeks 2-5.

Course Materials: (Bring these with you every week)

- *The Natural History of the UC Santa Cruz Campus*: 2008; 2nd ed. edited by Haff, Brown, and Tyler, for sale at the Baytree Bookstore and on reserve at the Science Library.
- **One field guide:** borrowing from the library is fine.
- **Small notepad:** For taking notes during class.
- **Field journal and pen/pencil:** Though the best are stitched or hard bound and smaller than standard paper, (but not too small, as tiny notebooks are difficult to draw & press plants in)
- **A hand-lens/loupe:** Optional - Can be purchased from Bay Tree Bookstore—ask to purchase one at the register; ~\$8.
- **Binoculars:** Highly recommended. The UCSC Ken Norris Center may have a few pairs for loan—come see me after class. You will need a pair when we go birding. Please beg to borrow them if you can't buy a pair.
- **Backpack:** To put all this stuff into.

You will need for ALL class meetings:

- **Appropriate clothing, food/water, etc.:**
 - Dress warmly and in layers and be prepared for all kinds of conditions.
 - Wear comfortable walking/hiking shoes---closed-toed, no sandals.
 - Bring snacks and water if you tend to get hungry/thirsty.
 - Be prepared for poison oak and insects – we will be off trail often.
 - Camouflage: Earth tones are best; shoes that allow you to walk quietly.
- **Jungle Etiquette:**
 - “Be here now”: avoid talking about people or events that are not here and now. Talk quietly if you must.
 - Please do not use cell phones for texting, etc. during class, though they are fine to use for photos.
 - Following jungle etiquette has its rewards.

Details

- **Weekly class time:** We will spend the majority of class time exploring various parts of our wild campus, including the southern, core, and northern areas. Time in the field will focus on direct observation and interpretation of various elements and organisms within the natural world. Expect a mix of focused group and individual activities as well as ample time for exploration. We will likely move slowly as we settle into “earth time”. We will name things. We won’t be satisfied with just naming things—we will want to move past mere introductions and get to know the lives and stories around us. We’ll inquire about what we’re seeing, hearing, smelling, touching, and tasting. We will start each class at either our regular classroom in ISB 431 or alternative sites listed in the syllabus. These will be announced in class the week prior. Class will usually begin with announcements and sometimes a short lecture and quiz. Quizzes may also happen in the field during class or near the end of class time. Each week we’ll wrap up with a reminder about the week’s journal and reading assignments. I think we’ll enjoy all this.
- **Field Journal Exercises:** These assignments are designed to allow you ample time with a specific place on campus—a place you’ll adopt as your own (or that will adopt you), a place, or spot, you’ll sit on: Your sit spot. By the end of the Quarter this one location, and please don’t stress about finding the perfect site, will prove to you that you can learn an incredible amount about the world (and about yourself) by looking closely at what’s going on in one (in any) spot. Weekly assignments will have you focus on a different aspect of your sit spot, including its topography; its vegetation; its animal inhabitants; its trails big and small, faint and worn; and will ask you to stretch your awareness and to question, question, question. Pictures (drawings, etc.) say a thousand words. A thousand words say a thousand words. Most entries will be less than a thousand words. Lose yourself in your place, in your writing, sketching, documenting and speculating, come-to hours (2, or more if you fall asleep) later, look forward to the next time. Weekly journal assignments will be posted on eCommons in the Field Journal Assignments folder within the main Resources and Assignments folder. Please read the descriptions of the upcoming assignments at the start of each week so you can make a plan for how you’ll complete the field journal assignments on time.
- **Quizzes:** Weekly quizzes, beginning in Week 2, will allow us to review and reckon with the in-class observations we’ll be making. Quizzes will be cumulative in content—for example, a quiz during Week 5 could cover species and habitats we’ve seen in the field during Weeks 1-4. These quizzes are not designed to destroy you. These quizzes will allow you to practice the names of things. They will include extra credit questions. The quizzes will encourage you to pay close attention to the world around you, if you’re into that whole external motivation thing. They might even be enjoyable. Be present in class, take your learning seriously, read the book, and your performance on the quizzes will merely demonstrate your level of interest and your desire to learn more about the world around you.
- **Readings:** Your textbook, *Natural History of the UC Santa Cruz Campus* (Haff et al. 2008), is great. The fact that it exists for a college campus—your college campus—is incredible, and is a genuine testament to all there is to discover daily as you walk from class to class to dorm to dining hall to meadow to forest and back to class. Weekly readings will prepare you for the next week’s class topic and will hopefully get you excited to learn more. There also may be occasional supplemental readings, such as peer-reviewed literature, species or group-specific terminology/diagram sheets, poetry, what not.
- **Final Project:** To be explained week 2
- **Resources:** We have many. The Ken Norris Center for Natural History has its collections, as well as a library of field guides to consult. I may post other resources on Canvas and feel free to come ask me for more.
- **You:** This class is not a blow-off. It is demanding. The more you show up, and I do mean Show Up, the more you will get out of this class, and the less bored you will be for the rest of your life.

WEEKLY SCHEDULE & ASSIGNMENTS

Week 1: 7/30 and 8/1 Introduction to Natural History/Field Journaling/Geology and Topography of Campus

Meeting time: Tuesday and Thursday 10am-12pm

Place: ISB 431

Quiz: NONE

Due at beginning of class: NOTHING

Lecture: Intro to class, logistics; field journaling, geology

HW:

Field journal exercises: #1, #2, #3, #4, #5

Reading Assignment: Chap 1 Human History pp. 1-32; Chap 2 Geology 37-48; 71-89; Chap 3 Plants 110-131

Study for QUIZ: Week 1 class + Readings

Week 2: 8/6 and 8/8 Plants/Human History

Meeting time: Tuesday and Thursday 10am-12pm

Place: Tuesday - Between colleges 9 and 10 at wooden benches

Thursday - TBA

Quiz: Week 1 class

Due at beginning of class: Field Journal Exercise #1, #2, #3, #4, #5

Field Trip: Upper Campus

HW:

Field journal exercise: #6, #7, #8

Reading Assignment: Chap 9 Birds: 242-269

Study for QUIZ: Week 2 class + Readings

Week 3: 8/13 and 8/15 Birds and Bird Language

Meeting time: Tuesday and Thursday 10am-12pm

Place: Tuesday - ISB 431

Thursday - UCSC Arboretum—main back gate

Quiz: Week 2 class + Readings

Due at beginning of class: Field Journal Exercises #6, #7, #8

Field Trip: Arboretum

HW:

Field journal exercises: #9, #10, #11, #12

Reading Assignment: Chap 10 Mammals: 278-310

Study for QUIZ: Week 3 class + Readings

Week 4: 8/20 and 8/22 Mammals/Tracking

Meeting time: Tuesday and Thursday 10am-12pm

Place: Tuesday :UCSC Arboretum - main back gate

Thursday: TBA

Quiz: Week 3 class + Week 1-3 species list

Due at beginning of class: Field Journal Exercise #9, #10, #11, #12

Norris Center Lab: Mammal specimens; functional morphology

Field Trip: Mammal sign on campus—locations TBA

HW:

Field journal exercises: #13, #14 + Final Project

Reading Assignment: Chap 7 Amphibians: 199-218; Chap 8 Reptiles: 223-239; Chap 6 Invertebrates: 179-195

Study for QUIZ: Week 4 class + Readings

Week 5: 8/27 and 8/29 Reptiles and Amphibians/Invertebrates

Meeting time: Tuesday and Thursday 10am-12pm

Place: Tuesday: Porter Squiggle

Thursday: Mima Meadow

Quiz: Week 1-4 class + Readings

Due at beginning of class: Field Journal Exercises #13, #14

Field Trip: Cave Gulch and Mima Meadow

HW: KEEP GOING OUTSIDE!

Support resources

Disabilities Resource Center (drc.ucsc.edu) and Learning Support Services (www2.ucsc.edu/lss) and CAPS (Counseling and Psychological Services; caps.ucsc.edu) are open and active all summer.

Summer Session Students with Disabilities

If you qualify for classroom accommodations because of a disability, please submit your Accommodation Authorization Letter from the Disability Resource Center (DRC) to me as soon as possible, preferably within the first week of the Summer Session. Contact DRC by phone at **831-459-2089** or by email at drc@ucsc.edu for more information.

Important dates

For all important Summer Session dates, see the Summer Calendar (<https://summer.ucsc.edu/fundamentals/academic-calendar.html>)

Here are important dates

Add Deadline—Thursday, August 1st

Drop Deadline (refund) – Monday, August 5th

Withdraw Deadline (no refund) —Friday, August 16th

Deadline to Change Your Grading Option—Friday, August 9th

Academic advising

Academic advising is offered all summer; hours will vary by college. Contact your college to find out when advising is being offered or visiting advising.ucsc.edu.

Online Instructor Evaluations

*****You will get +0.5% on your final grade for completing an online evaluation*****

Proper Journal Format: The Grinnell Style

For all entries in your field journal/class notebook, you will use a format developed by Joseph Grinnell, a biologist who worked at UC Berkeley's Museum of Vertebrate Zoology in the early 1900's. His philosophy, which has been adopted by thousands of field scientists today, was that field notes were mainly for the use of others and so a standard format was necessary to facilitate fast retrieval of information. Although few others will probably refer to your notes for this particular class, one very important other will: your future self. In order for your notes to be of maximum use to even yourself, it is of paramount importance to include the context of any notes or journal entries you make. Context covers a broad set of things, such as the date, your location, your name, and the objective of your entry. But context can also include descriptions of the terrain around you, the weather conditions, and the time of day. It may even include your own summary reflections after witnessing an event in nature, completing a reading, or having a discussion in class.

Here is a sample generic journal page depicting the basic Grinnellian format as applied to this class

Heading: Name/Date/Location

Objective/Context:

1200 Journal Entry:
Class Notes
Nature Awareness Journals
Internship reflections
Natural history research

200 Summary/Reflections:

C. Lay 8 Apr 2012

CA: SG2: SG2: UCSC: Museum of Natural History;
Objective: Research: Stinging Nettle, *Urtica dioica*



Key Characteristics

- Opposite leaves
- Stinging hairs on stem + underside of leaf
- Flowers in loose stringy clusters ...

Edibility:

Medicinal Uses:

Habitat/Ecology:

Misc:

Sources: Edible Plants of the West

Here is a specific example of how to use Grinnell style for a natural history research journal



Here is a specific example of how to use Grinnell style for a sit spot journal



C. Lay 5 Apr 2012

CA: SG2: SG2: UCSC: Moore Creek in Willows directly north of back gate of UCSC Arboretum

Objective: I'm here to find + explore a sit spot that I will frequent throughout the quarter. My first task is to explore this spot, record observations, make sketches of interesting species I find, + sit + be attentive to my senses.

Weather: Clear skies, Warm - high 60's, slight wind

14:30 There are flowers in the long grass that I didn't notice at first:
 - The petals are white with purple veins,



15:00 As I sat quietly listening to the birds, a small green snake appeared + crawled over my foot!

15:30 Reflection: Wow I never thought there would be so much to see in one spot.....